

MR3375-9

Serial Number: 10/629,700

Reply to Office Action dated 22 September 2004

**REMARKS/ARGUMENTS**

This case has been carefully reviewed and analyzed in view of the Official Action dated 22 September 2004. Responsive to the rejections made in the Official Action, Claim 1 has been amended to correct the language thereof and the combination of elements which forms the invention of the subject Patent Application. Additionally, Claim 2 has been cancelled by this Amendment and the dependency of Claim 3 has been amended to account for the cancelled Claim.

In the Official Action, the Examiner rejected Claims 2-4 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Examiner stated that the role of the differential amplifier 63 was not understood, as it appeared that the input from the preamplifier 61 and 62 would be close to identical, and therefore the output of the differential amplifier would be close to zero, rather than a signal representative of the heart beat.

It is respectfully submitted that there was a transformation of reference numerals/nomenclature in the Drawings, Specifications and Claims, and such has been corrected by this Amendment. It is respectfully submitted that the inner plates of the first and second pair of conductors 31 and 41 should be connected to the input of one preamplifier, for providing a heart beat signal at one arm of the user. The outer plate of each of the first and second pair of conductors 32 and 42 should be contacted by the other hand of the user and connected to the second preamplifier. The difference in propagation through the body between the two

MR3375-9

Serial Number: 10/629,700

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arms of the user is then detectable by the differential amplifier 63, which signal is then processed and provided to the microprocessor 68 to establish the heart beat signal provided to display 69. It is believed that the amendment made to the Specification, Drawing of Fig. 6 and the Claims overcome the Examiner's rejection under 35 U.S.C. § 112, first paragraph. It is believed that the Specification and Claims now are sufficiently enabling to allow one skilled in the art to make and use the invention.

In the Official Action, the Examiner rejected Claim 1 under 35 U.S.C. § 112, second paragraph, because the term "the body" lacked proper antecedent basis.

Claim 1 has been amended to replace the term "body" with the proper terminology, -- casing --, for which there is proper antecedent basis. Thus, it is now believed that the Claims particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

In the Official Action, the Examiner rejected Claims 1, 5 and 6 under 35 U.S.C. § 103(a), as being unpatentable over Tsubata, U.S. Patent 6,447,456, in view of Wolfe, U.S. Patent 4,120,494, and Chen, U.S. Patent 5,778,880.

It is respectfully submitted that the invention of the subject Patent Application, as now defined in Claim 1, calls for the components of the control circuit, as previously defined in Claim 2. In particular, Claim 1 now requires a first pre-amplifier and a second pre-amplifier, the output terminals of each of the

MR3375-9

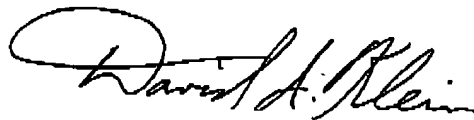
Serial Number: 10/629,700

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pre-amplifiers being coupled to respective input terminals of a differential amplifier, the output from which is utilized by a microprocessor to calculate a hear beat signal. None of the references relied upon by the Examiner disclose or suggest a heartbeat sensing device including a combination of a pair of preamplifiers and a differential amplifier to detect a heart beat signal. Thus, the combination of Tsubata, Wolfe and Chen cannot make obvious the invention of the subject Patent Application, as now claimed.

For all of the foregoing reasons, it is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,  
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Dated: 24 Jan. 2005

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MR3375-9

Serial Number: 10/629,700

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